ABLATION
Investigation of the Effective Inertia in a Centrifugal Hypersonic Wind Tunnel, p. 745 (Dec.).

AERODYNAMICS—*See also* Yacht Research.
Aerodynamic Aspects of Boundary Layer Control for High Lift at Low Speeds, J. Williams and S. F. J. Butler, p. 201 (April).
Aerodynamic Design of Swept Winged Aircraft at Transonic and Supersonic Speeds, R. C. Lock, p. 325 (June).
Delta Wings of Shapes Amenable to Exact Shock-Wave Theory, T. Nonweiler, p. 39 (Jan.).
Simple Method for Simultaneous Projection of a Schlieren Image on a Viewing Screen and into a Camera (TN), C. Nebbeling, p. 454 (July).
Trends in Unsteady Aerodynamics (Sixth Lanchester Memorial Lecture), W. P. Jones, p. 137 (Mar.).

AEROFOILS
Aerofoils in Incompressible Flow, Laminar Separation Bubbles, p. 783 (Dec.).
Aerofoil Pressure Distributions at Transonic Speeds Affected by Shock Boundary Layer Interaction, p. 674 (Oct.).
Aerofoils, Manufacture of Blades for Use in a Cascade, p. 378 (June).
Behaviour and Effects of Laminar Separation Bubbles on Aerofoils in Incompressible Flow, p. 783 (Dec.).
Researches on Rotating Aerofoils, p. 47 (Jan.).

AERONAUTICS
Aeronautical Industry in the Europe of Tomorrow (Sixteenth Louis Blériot Lecture), Rene Bloch, p. 279 (May).
Aeronautical Research and Development in the Commonwealth (Nineteenth British Commonwealth Lecture Summary), A. E. Woodward-Nutt, p. LXX (Oct.).
Aeronautics, Part Played by Wind Tunnels, p. 463 (Aug.).

AEROPLANE AND ARMAMENT EXPERIMENTAL ESTABLISHMENT
Rotorcraft Work, p. 501 (Aug.).

AGRICULTURAL AVIATION
Current Ideas regarding the Rotating Distributor, D. R. Johnstone, p. 767 (Dec.).
Spraying, Chemical Distribution Equipment for Agricultural Aircraft in California, p. 760 (Dec.).
Agricultural Aviation in the U.S.S.R., E. A. Smirnov, p. 224 (April).
Agricultural Aviation Potentials for Asia (Lecture Summary), E. C. S. Little, p. LXX (Oct.).
Requirements for Agricultural Aircraft—Pilot's Viewpoint and Engineering Aspects: The Pilot's Viewpoint—1, J. M. McMahon, p. 770 (Dec.).
Requirements for Agricultural Aircraft—Pilot's Viewpoint and Engineering Aspects: The Pilot's Viewpoint—2, D. H. Woolley, p. 772 (Dec.).
Research and Development of Chemical Distribution Equipment for Agricultural Aircraft in California, N. B. Akesson and W. E. Yates, p. 760 (Dec.).
Distributor, Rotating, Current Ideas, p. 767 (Dec.).
Agricultural Machinery, Aerial—A Symposium, p. 754 (Dec.).
Airworthiness Requirements for Agricultural Aircraft, pp. 774, 776 (Dec.).
Night Spraying, W. E. Ripper, p. 758 (Dec.).

AHREN, B.
Note on the Cylindrical Ejector Supersonic Propelling Nozzle (TN), Comment by H. Pearson and Reply by J. Dunham, p. 670 (Oct.).

AIRCRAFT
Boeing, 727, Development of, p. 103 (Feb.).
Breguet Atlantic, p. 153 (Mar.).
Crimea, p. 175 (Mar.).
Design and Manufacture, Legal Liabilities, pp. 296, 298 (May).
Design Problems of Modern Aircraft (Lecture Summary), D. James, p. IV (Jan.).
Future Prospects of Light and Executive Types in the United Kingdom, p. 637 (Oct.).
H.P.115, p. 41 (Jan.).
Interchange between Countries, the Legal Point of View, p. 514 (Aug.).
Variable Geometry, C. G. B. Mitchell (Lecture Summary), p. LV (Aug.).
X-15, p. 79 (Feb.).

AIR CUSHIONED VEHICLES
Hovertruck—1, A. E. Bingham, p. 755 (Dec.).
Hovertruck—2, E. W. Evans, p. 756 (Dec.).

AIRLINE ENGINEERING
A Symposium, p. 165 (Mar.).

AIR TRANSPORT
Airline Engineering Symposium, p. 165 (Mar.).
Australia's Internal Air Transport (Eighteenth British Commonwealth Lecture), J. L. Watkins, p. 11 (Jan.).
Air Transport Fares, pp. 26, 27 (Jan.).
Education of Airline Engineers, pp. 421 (July), p. 528 (Aug.), p. 599 (Sept.).
Future Contribution, pp. 29-35 (Jan.).
Licensing of Air Transport (Lecture Summary), S. Wheatcroft, p. LXXVI (Nov.).
Maintenance and Overhaul in Relation to Operator's Field Requirements and Official Airworthiness Requirements, H. Best-Devereux, p. 774 (Dec.).
Operating Costs, pp. 33–35 (Jan.).
Statistics, pp. 19, 23, 25 (Jan.).
Survey of the Characteristics of VTOL Aircraft, p. 413 (July).
Take-off and Landing, p. 539 (Sept.).

AIRWORTHINESS
Approach Criteria, J. R. D. Kenward, p. 552 (Sept.).

AKESSON, N. B. and YATES, W. E.
Research and Development of Chemical Distribution Equipment for Agricultural Aircraft in California, p. 760 (Dec.).

ALUMINIUM ALLOY HE 15
Proof Stress Effect on the Notched Fatigue Strength, p. 596 (Sept.).

ANANTHARAMU, S. and K. T. SUNDARA RAJA IYENGAR
Buckling of Bars of Variable Rigidity with Varying Axial Load (TN), p. 734 (Nov.).

ANGLO-AMERICAN AERONAUTICAL CONFERENCE
Programme and Papers, p. XXXI (May).

ANNUAL REPORT
See Royal Aeronautical Society.

ANSETT TRANSPORT INDUSTRIES
pp. 21–23 (Jan.).

AQUAPLANING
Aquaplaning on Runways (TN), W. E. Gray and Comment from G. E. Gadd, p. 302 (May).
Aquaplaning on Runways (TN), D. H. Trollope and K. B. Wallace and W. E. Gray's Comments, p. 598 (Sept.).
Note on the Undercarriage Aquaplaning of Aircraft Landing on Water-covered Runways (TN), p. 189 (Mar.).
Runway Slipperiness and Slush, p. 559 (Sept.).

ARENS, M.
The Shock Position in Overexpanded Nozzles (TN), and comment from Prof. I. I. Glass, p. 268 (April).

ASHLEY, H. R.
Towards Better Structures (A Symposium)—Structural Development (Lecture), p. 701 (Nov.).

ASTRONAUTICS
Man and Military Space, p. 397 (July).
Relative Roles of Man and Instruments in Space, p. 225 (April).

ATKINSON, R. J.
Towards Better Structures (A Symposium)—Structural Design (Lecture), p. 692 (Nov.).

AUSTRALIA
Australia's Internal Air Transport (Eighteenth British Commonwealth Lecture), J. L. Watkins, p. 11 (Jan.).
Airline Route Development (Maps), pp. 16, 20 (Jan.).
Climatic Zones and Population Distribution, p. 12–13 (Jan.).

AUTOGYRO
Low-cost, Development, p. 111 (Feb.).
Autogyro, Wallis Ultra-light, p. 754 (Dec.).

BAC 111 (Hunting 107)
Development of this Liner, Summary of Branch Lecture, p. 68 (Jan.).

BARNES, J. F. and MOUNTAIN, A. R.
Heat Transfer to a Jet of Air Impinging Normally on to the Inside Surface of a Hot Smooth Tube (TN), p. 523 (Aug.).

BARRETT, A. J.
The Finding of Aeronautical Research Information and its Exploitation, lecture published elsewhere, p. IX (Feb.).

BARROW, H. and LEE, Y.
A Note on the Determination of Shearing Stress and Heat Flux Around the Perimeter of a Duct (TN), p. 448 (July).

BEAMS
Bending of Beams Made of Non-Linear Material (TN), C. R. Calladine, p. 124 (Feb.).

BEARINGS
Whirling with Spring Bearings and Rough Snubbers (TN), B. Irons, p. 66 (Jan.).

BEAUMONT, K. M. and WHITE, C. B.
Legal Liabilities arising out of Aircraft Design and Manufacture (Lecture), p. 296 (May).

BELL, D. J.
Review of Flight Optimisation Along Synergic Paths in the Period 1945–1960, p. 119 (Feb.).

BERT, C. W.
Optimum Elastic Restraint for Pressurised Circular Plates (TN), p. 525 (Aug.).

BEST-DEVEREUX, H.
Maintenance and Overhaul in Relation to Operators' Field Requirement and Official Airworthiness Requirements, p. 774 (Dec.).

BINGHAM, A. E.
The Hovertruck—1, p. 755 (Dec.).

BLADES
Manufacture of Aerofoil-Section Blades for Use in a Cascade (TN), B. R. Clayton, p. 378 (June).

BLERIOT, LOUIS, SIXTEENTH LECTURE
The Aeronautical Industry in the Europe of Tomorrow, Rene Bloch, p. 279 (May).

BLOCH, RENE
The Aeronautical Industry in the Europe of Tomorrow (Sixteenth Louis Bleriot Lecture), p. 279 (May).
NATO's Firstborn: The Atlantic (Lecture), p. 153 (Mar.).

BOEING 727
Development of the Boeing 727 (Lecture), J. E. Steiner, p. 103 (Feb.).

BORE, C. L. and BOYD, A. T.
Estimation of Maximum Lift of Swept Wings at Low Mach Numbers, p. 227 (April).

BOUNDARY LAYER
Control for High Lift at Low Speeds, p. 201 (April).
Flow, Laminar Separation Bubbles on Aerofoils, p. 783 (Dec.).
Measurements on a Slender Wing at Supersonic Speeds, R. T. Griffiths, p. 291 (May).
Shock Boundary Layer Interaction on Aerofoil Pressure Distributions at Transonic Speeds (TN), D. Tirumalesa, p. 674 (Oct.).

BOYD, A. T. and BORE, C. L.
Estimation of Maximum Lift of Swept Wings at Low Mach Numbers, p. 227 (April).

BOYD, E. A.
Comment on a Conjecture of Tanner (TN), and Tanner's reply, p. 127 (Feb.).
Generalisation of the Condition for Waviness in the Pressure Distribution on a Cambered Plate (TN), p. 529 (April).

BRADSHAW, P.
Performance of a Diffuser with Fully-Developed Pipe Flow at Entry (TN), p. 733 (Nov.), correction 795 (Dec.).

BRAGG, S. L. and SMITH, S. F.
The Speed of Sound and Mach Number Effects (TN), p. 669 (Oct), Comment by B. S. Stratford and reply, p. 797 (Dec.).

BRAKING
Problems, D. A. J. Harben, p. 581 (Sept.).

BREGUET ATLANTIC
02 and 03, p. 153 (Mar.).

BRISTOL GAS TURBINES
The First Decade, F. M. Owner, p. 427 (July).

BRITISH COMMONWEALTH—EIGHTEENTH LECTURE
Australia's Internal Air Transport, J. L. Watkins, p. 11 (Jan.).

BRITISH UNITED AIRWAYS
Précis of Lecture, F. A. Laker, p. LXXXVI (Dec.).

BRYCE, W. D. and MORLEY, A. W.
Natural Vibration with Damping Force Proportional to a Power of the Velocity (TN), p. 381 (June).

BUCKLING
Rates of Change of Eigenvalues, Comment by W. H. Wittrick on his paper, p. 67 (Jan.).
Buckling of Bars of Variable Rigidity with Varying Axial Load (TN), K. T. Sundara Raja Iyengar and S. Anantharamu, p. 734 (Nov.).

BUTLER, S. F. J. and WILLIAMS, J.
Aerodynamic Aspects of Boundary Layer Control for High Lift at Low Speeds, p. 201 (April).

BY-PASS ENGINE
Efficiencies and thermodynamics of, pp. 736 (Nov.), 796 (Dec.).

CALLADINE, C. R.
Note on the Bending of Beams Made of Non-Linear Material (TN), p. 124 (Feb.).

CALLINAN, J. and QUINCEY, V. G.
Experiments with a Pitot Rake at M=1·60 (TN), p. 793 (Dec.).

CANADA
Ninth Anglo-American Aeronautical Conference, Programme and Papers, p. XXXI (May).

CANSDALE, R.
The Prone Pilot Position, p. 790 (Dec.).

CAPLAN, H. and RICHARDS, E. J.
Control of Aircraft Noise Perceived at Ground Level, (Lecture Summary), p. XX (Mar.).

CASCADES
Manufacture of Aerofoil-section Blades for Use in a Cascade (TN), B. R. Clayton, p. 378 (June).

CATTANACH, J.
Ground-to-ground Ballistic Missiles (Lecture Summary), p. LXI (Sept.)

CHEESEMAN, I. C.
VTOL Aircraft: A Survey of Some of Their Characteristics with Special Reference to Civil Use, p. 413 (July).

CHRISINGER, J. E., TILTON, E. L., PARKIN, W. J., COFFIN, J. B. and COVERT, E. E.
Magnetic Suspension and Balance Systems for Wind Tunnel Application, p. 717 (Nov.).

CIASTULA, C. T.
Development of the P.531 (Lecture Summary), p. LXX (Oct.).

CIERVA—THIRD MEMORIAL LECTURE
The Engineering Reliability of Shaft-driven Helicopters, O. L. L. Fitzwilliams, p. 487 (Aug.).

CLAYTON, B. R.
The Manufacture of Aerofoil-section Blades for Use in a Cascade (TN), p. 378 (June)

CLEAR HILL, E. C. and WIMPENNY, J. C.
The Problems of Man Powered Flight, Lecture Summary (lecture postponed), p. XX (Mar.).

COCHEME, J.
Tornadoes and Hurricanes, (Lecture Summary), p. XII (Feb.).

COFFIN, J. B., COVERT, E. E., CHRISINGER, J. E., TILTON, E. L. and PARKIN, W. J.
Magnetic Suspension and Balance Systems for Wind Tunnel Application, p. 717 (Nov.).

COLLAR, A. R.
President 1963–64, p. XXIX (May).
Message from, p. LVII (Sept.).
Design of Contra-Rotating Fans, p. 725 (Nov.).

COMPUTERS
Computer Applications in the Development of Efficient Aircraft Structures, p. 706 (Nov.).

CONVERTIPLANES
Development of the Tilt-wing Aircraft, pp. 361, 371 (June).
Survey of VTOL Characteristics with Special Reference to Civil Use, p. 413 (July).
Convertible Rotor, Domain of the (Lecture Summary), R. Hafner, p. LXXVI (Nov.)

COOK, G. C.
Full Pressure Suits (Lecture Summary), p. LXII (Sept.).

COVERT, E. E., CHRISINGER, J. E., TILTON, E. L., PARKIN, W. J. and COFFIN, J. B.
Magnetic Suspension and Balance Systems for Wind Tunnel Application, p. 717 (Nov.).

CRANFIELD SOCIETY
Handley Page Memorial Lectures, p. V (Feb.), Agreement, p. XLIX (Aug.).

CRIME
Crime in Aircraft (Lecture), Sir Richard Wilberforce, p. 175 (Mar.).

CYLINDERS, THIN
Interaction between Membrane and Edge Stresses under Axially Symmetrical loading, p. 172 (Mar.).

DAVIES, G. A. O. and HODDINOTT, J. R.
Stresses in a Plate Pierced by Two Unequal Circular Holes (TN), p. 451 (July).

DAVIES, H.
The Design and Development of the Thiokol XLR 99 Rocket Engine for the X-15 Aircraft (Lecture), p. 79 (Feb.).

DAVIES, R. E. G.
Monorails, Lecture to Graduates' and Students' Section, Summary, p. XXII (Mar.).

DEE, F. W. and MABEY, D. G.
Calibration of a Cruciform Wind Vane Configuration at Subsonic and Supersonic Speeds (TN), p. 267 (April), Correction, p. 386 (June).

DELTA WINGS
Delta Wings, Estimation of Non-Linear Lift at Supersonic Speeds, p. 476 (Aug.).
Delta Wings of Shapes Amenable to Exact Shock-Wave Theory, p. 39 (Jan.). Comment on (TN), A. C. Southgate and J. R. Pedersen, p. 301 (May).
Delta Wing Shapes of High Supersonic Speeds, p. 287 (May).

DIFFUSER
Performance with Fully Developed Pipe Flow at Entry, p. 733 (Nov.), Correction, p. 795 (Dec.).

DISCUSSIONS—CONTRIBUTORS TO
Abell, C., pp. 167, 168, 169 (Mar.); Amaden, —, p. 782 (Dec.); Ashley, H. R., p. 163 (Mar.); Axford, Capt. W. B., p. 497 (Aug.); Ayles —, p. 782 (Dec.); Banks, Air Cdre. F. R., pp. 5, 10 (Jan.); Barraclough, A. H., pp. 182 (Mar.), 300 (May), 521 (Aug.); Barrett, R. V., p. 586 (Sept.); Beaumont, Major K. M., pp. 180 (Mar.), 522 (Aug.); Bennett, Prof. J. A. J., pp. 38, 62 (Jan.), 475, 498 (Aug.); Bortkiewicz, J. F., p. 513 (Aug.); Brooks, H., 711 (Nov.); Brown, F. G. J., p. 512 (Aug.); Bulman, Major G. P., p. 7 (Jan.); Caplan, H., pp. 182 (Mar.), 522 (Aug.); Carter, —, p. 782 (Dec.); Challier, W. O. W., p. 171 (Mar.); Cheeseman, I. C., p. 498 (Aug.); Cheng, Dr. B., p. 182 (Mar.); Cleaver, A. V., p. 6 (Jan.); Cleaver, Gp. Capt. P. C., pp. 494, 498 (Aug.); Collar, Prof. A. R., p. 7 (Jan.); Cook, G. N., p. 782 (Dec.); Cook, J. R., p. 649 (Oct.); Cope, J., p. 167 (Mar.); Corre, D. L., p. 649 (Oct.); Cronbach, P. L., p. 8 (Jan.); Cronin, R. F., p. 649 (Oct.); Darling, Cdr. L. C., p. 495 (Aug.); Davenport, D. J., p. 300 (May); Davies, S. D., p. 10 (Jan.); Dawson, L. G., p. 161 (Mar.); Dimmock, N. A., p. 63 (Jan.); Dyment, J. T., pp. 167, 168, 169, 171 (Mar.); Edwards, Sir George, p. 37 (Jan.); Edwards, J. B., p. 165 (Mar.); Evans, R. G., p. 474 (Aug.); Fage, A., p. 152 (Mar.); Farren, Sir William, p. 8 (Jan.); Gray, E. W. J., p. 648 (Oct.); Gray, W. E., p. 587 (Sept.); Greenwood, S. W., p. 6 (Jan.); Haines, A. B., p. 336 (June); Hall, L. J. W., p. 587 (Sept.); Hardingham, R. E., p. 168 (Mar.); Harrison, R. B., p. 782 (Dec.); Haworth, L., p. 163 (Mar.); Hills, R., p. 473 (Aug.); Hilton, Dr. W. F., p. 6 (Jan.); Holden, Wg. Cdr. E. J., p. 6 (Jan.); Hosegood, C. T. D., p. 497 (Aug.); Johnson, Prof. D. H. N., p. 522 (Aug.); Keen, A. W., p. 168 (Mar.); Kendal, R. M., p. 163 (Mar.); Kolk, F., pp. 169, 170, 171 (Mar.); Küchemann, Dr. D., pp. 61 (Jan.), 337 (June); Kuhn, P., p. 712 (Nov.); Lachmann, Dr. G. V., p. 166 (Mar.); Laight, B. P., p. 171 (Mar.); Lee, G. H., pp. 7 (Jan.), 473 (Aug.); Le Sueur, H. E., p. 499 (Aug.); Lighthill, Dr. M. J., p. 151 (Mar.); Linton, Capt. J. B., p. 181 (Mar.); Loveless, E., p. 634 (Oct.); Luton Branch, a representative, p. 6 (Jan.); Mann, W. J., p. 781 (Dec.); Macmillan, Wg. Cdr. N., p. 9 (Jan.); Martin, —, p. 300 (May); Masefield, P. G., p. 7 (Jan.); Mathison, W. B., p. 513 (Aug.); Meacock, F. T., p. 9 (Jan.); Michael, D., p. 648 (Oct.); Mills, J., p. 169 (Mar.); Milner, C. G., p. 7 (Jan.); Morgan, M. B., p. 38 (Jan.), 165, 166, 167 (Mar.); Morgan, R. C., pp. 36 (Jan.), 165, 166, 167, 168, 169, 171 (Mar.); Nayler, J. L., p. 8 (Jan.); Newbery, T. G. G., p. 513 (Aug.); Nivet, R., p. 169 (Mar.); Nugent, O., p. 182 (Mar.); Nya, Prof. R., p. 521 (Aug.); Pankhurst, R. C., p. 475 (Aug.); Pritchard, Capt. J. L., p. 8 (Jan.); Rhoades, W. E., pp. 167, 170 (Mar.); Shapiro, J., pp. 498, 500 (Aug.); Shaw, J. A. A., p. 650 (Oct.); Shenstone, B. S., p. 473 (Aug.); Smirnov, E. A., p. 169 (Mar.); Smith, K. A. C., p. VII (Feb.); Stephenson, B. E., p. 713 (Nov.); Thomas, H. H. B. M., pp. 152 (Mar.), 474 (Aug.); Tinkler, Dr. J., p. 62 (Jan.); Tye, W., pp. 168 (Mar.); 300 (May); Tymms, Sir Frederick, pp. 180 (Mar.), 522 (Aug.); Vincent, H. E., p. 648 (Oct.); Waller, P., p. 168 (Mar.); Wheeler, A. H., p. 782, (Dec.); Whitby, R. H., pp. 170 (Mar.), 496 (Aug.), 588 (Sept.); Wilkinson, K. G., pp. 166, 169 (Mar.); Wingfield, L. A., pp. 180 (Mar.), 300 (May), Winton, H., p. 782 (Dec.); Wolfe, M. O. W., p. 711 (Nov.); Woodford, C. G. A., p. 7 (Jan.); Young, Prof. A. D., p. 61 (Jan.).

DUCT
Determination of Shearing Stress and Heat Flux Around the Perimeter, p. 448 (July).
Mach Number Effects due to the Speed of Sound in a Duct or Annulus, p. 669 (Oct.).

DUNHAM, J.
Reply to Note on the Cylindrical Ejector Supersonic Propelling Nozzle (TN), by B. Ahren and Comment by H. Pearson, p. 670 (Oct.).
Theory of the Cylindrical Ejector Supersonic Propelling Nozzle (TN), and Reply by H. Pearson, p. 64 (Jan.).

EDINBURGH, H.R.H. THE DUKE OF
Education for Technology (First Handley Page Memorial Lecture), p. 319 (June).

EDUCATION
Education of the Airline Engineer, K. G. Wilkinson, p. 421 (July), Correspondence, pp. 528 (Aug.), 599 (Sept.).
Education for Technology (First Handley Page Memorial Lecture), H.R.H. The Duke of Edinburgh, p. 319 (June).

ENGINEERING
Education of the Airline Engineer, p. 421 (July), Correspondence, pp. 528 (Aug.), 599 (Sept.).
Reliability of Shaft-Driven Helicopters (Third Cierva Memorial Lecture), O. L. L. Fitzwilliams, p. 487 (Aug.).

EUROPE
The Aeronautical Industry of Tomorrow, p. 279 (May).

EVANS, E. W.
The Hovertruck—2, p. 756 (Dec.).

EXECUTIVE AIRCRAFT
Their Future Prospects in the United Kingdom, p. 637 (Oct.).

FAIRBROTHER, A. J.
Flight Testing of Modern Jet Air Liners, Summary of Lecture to Graduates' and Students' Section, p. XXVIII (April).

FANS—*See also* Wind Tunnels.
Blades, Surface Flow Patterns Visualised by Dust Deposits, p. 589 (Sept.).
Contra-Rotating, Design, p. 725 (Nov.).

FATIGUE
Fatigue of Agricultural Aircraft, p. 776 (Dec.).
Fatigue Strength of Aluminium Alloy HE 15 when Notched, p. 596 (Sept.), p. 798 (Dec.).
Fatigue Strength, Notched, Effect of Proof Stress, p. 798 (Dec.).

FEARNSIDE, K.
Take-off and Landing Problems—Instrument Aids for Take-off (Lecture), p. 544 (Sept.).

FEDDEN, SIR A. H. ROY,
The Role of the Royal Aeronautical Society in the Next Decade, Introduction to a Discussion, p. 1 (Jan.). Typed transcript of meeting held on 29th July 1963 available on loan, p. LVIII (Sept.), Discussion meetings held on 29th July and 18th September 1963, Report, p. LXIII (April).

FIELDING, J.
Towards Better Structures—Materials (Lecture), p. 685 (Nov.).

FILLEUL, N. le S.
Efficiencies, Thermodynamics and the By-Pass Engine (TN), p. 736 (Nov.), Comment from H. Pearson, p. 796 (Dec.).

FITZWILLIAMS, O. L. L.
The Engineering Reliability of Shaft-Driven Helicopters (Third Cierva Memorial Lecture), p. 487 (Aug.).

FLAPS
Researches on Rotating, p. 47 (Jan.).

FLIGHT OPTIMISATION IN THE PERIOD 1945-1960
p. 119 (Feb.).

FLIGHT TESTING
Flight Testing the H.P. 115 Slender Wing Aircraft (Lecture), Sqn. Ldr. J. M. Henderson, p. 41 (Jan.).

FLOWER, J. W.
Configurations for High Supersonic Speeds Derived from Simple Shock-Waves and Expansions, p. 287 (May).

FLUTTER
Trends in Unsteady Aerodynamics, p. 137 (Mar.).

FORD, J. S. and HORTON, W. H.
A Centrifugal Hypersonic Wind Tunnel Facility for Investigating Effects of Inertia on Ablating Bodies, p. 745 (Dec.).

FORREST, P. G.
A Note on the Effect of Proof Stress on the Notched Fatigue Strength of the Aluminium Alloy HE 15 (TN), p. 596 (Sept.), Comment by E. R. Welbourne, p. 798 (Dec.).

FRANCIS, R. H.
Blue Steel (Lecture Summary), p. LXX (Oct.).

FRANCIS, R. H. and HILTON, W. F.
The Relative Roles of Man and Instruments in Space, Introduction to Discussion, p. 225 (April).

FUEL SYSTEMS
Problems in High Speed Aircraft (Lecture Summary), W. G. Lydiard, p. X (Feb.).

GADD, G. E.
Comment on Aquaplaning on Runways (TN), W. E. Gray, p. 302 (May).

GAS TURBINES
The First Decade of Bristol Engines, p. 427 (July).

GIBSON, M. M. and HIGNETT, E. T.
Surface Flow Patterns as Visualised by Dust Deposits on the Blades of a Fan, p. 589 (Sept.).

GLASS, I. I.
Comment on the Shock Position in Overexpanded Nozzles (TN), M. Arens, p. 268 (April).

GRADUATES' and STUDENTS' SECTION
Annual General Meeting, p. XXXV (May).

GRAY, W. E.
Aquaplaning on Runways (TN), and Comment from G. E. Gadd, p. 302 (May).
Comments on Aquaplaning on Runways (TN), D. H. Trollope and K. B. Wallace, p. 598 (Sept.).

GRIFFITHS, R. T.
Some Boundary Layer Measurements on a Slender Wing at Supersonic Speeds, p. 291 (May).

GUSTAFSON, F. B.
Powered-Lift Research at Langley Field (Lecture), p. 371 (June).

HAFNER, R.
The Domain of the Convertible Rotor (Lecture Summary), p. LXXVI (Nov.).

HALL, I. A. M.
Study of the Human Pilot as a Servo-Element, p. 351 (June).

HANDLEY PAGE, FIRST MEMORIAL LECTURE
Education for Technology, H.R.H. The Duke of Edinburgh, p. 319 (June).

HANDLEY PAGE H.P. 115
Slender Wing Aircraft, Flight Testing of, p. 41 (Jan.).

HARBEN, D. A. J.
Take-off and Landing Problems—Braking Problems (Lecture), p. 581 (Sept.).

HARDINGHAM, R. E.
Education of the Airline Engineer, correspondence, p. 599 (Sept.).

HARGRAVE, LAWRENCE
Papers, p. XXX (May), p. LXXIII (Nov.).

HEAT TRANSFER
Heat Transfer to a Jet of Air Impinging Normally on to the Inside Surface of a Hot Smooth Tube (TN), A. R. Mountain and J. F. Barnes, p. 523 (Aug.).

HELICOPTERS
See Rotorcraft.

HENDERSON, Sqn. Ldr. J. M.
Flight Testing the H.P. 115 Slender Wing Aircraft (Lecture), p. 41 (Jan.).

HEPPE, R. R.
The Single-Rotor Helicopter with Rigidily-Mounted Blades (Lecture), p. 651 (Oct.).

HERBERT, M. V. and LEWIS, W. G. E.
Propelling Nozzle Research, Lecture Summary, p. XX (Mar.).

HICKLING, R.
Velocities Induced by the Vortex Wake of a Propeller in a Duct (TN), p. 731 (Nov.).

HIGNETT, E. T. and GIBSON, M. M.
Surface Flow Patterns as Visualised by Dust Deposits on the Blades of a Fan, p. 589 (Sept.).

HILTON, W. F. and FRANCIS, R. H.
The Relative Roles of Man and Instruments in Space, Introduction to Discussion, p. 225 (April).

HISTORY
See also Lectures, Historical Group.
Bristol Gas Turbines—The First Decade, p. 427 (July).

HODDINOTT, J. R. and DAVIES, G. A. O.
Stresses in a Plate Pierced by Two Unequal Circular Holes (TN), p. 451 (July).

HORNE, W. B. and LELAND, T. J. W.
Take-off and Landing Problems—Runway Slipperiness and Slush (Lecture), p. 559 (Sept.).

HORTON, W. H. and FORD, J. S.
Centrifugal Hypersonic Wind Tunnel Facility for Investigating Effects of Inertia on Ablating Bodies, p. 745 (Dec.).

HUBBARD, T. O'B.
pp. XLIII (July), LI (Aug.).

HUGHES, A. J.
Take-off and Landing Problems—Tyre Design Considerations (Lecture), p. 576 (Sept.).

HUGHES, MRS. D. D.
Appreciation, p. LI (Aug.).

HYPERSONIC AIRCRAFT
Factors Affecting the Surface Temperature of a Hypersonic Aircraft (TN), C. S. Sinnott, p. 672 (Oct.).
Hypersonic Research at the N.P.L., (Lecture Summary), E. W. E. Rogers, p. IV (Jan.).

INSTRUMENTS
Aids for Take-off, K. Fearnside, p. 544 (Sept.).
Development of the "Radio Altimeter-Trailing Static" Method of Measuring Aircraft Static Pressure Errors, J. D. McDaniel, p. 184 (Mar.).

INTERCHANGE
The Airlines' Point of View, H. Marking, p. 519 (Aug.).
The Legal Point of View, A. W. G. Kean, p. 514 (Aug.).

IRONS, B.
Eigenvalue Economisers in Vibration Problems (TN), p. 526 (Aug.).
Whirling with Spring Bearings and Rough Snubbers (TN), p. 66 (Jan.).

IYENGAR, K. T. SUNDARA RAJA and ANANTHARAMU, S.
Buckling of Bars of Variable Rigidity with Varying Axial Load (TN), p. 734 (Nov.).

JAMES, D.
Design Problems of Modern Aircraft, (Lecture Summary), p. IV (Jan.).

JEFFERSON, G. R.
The Development of Thunderbird (Lecture), p. 338 (June).

JET FLAPS
Aerodynamic Aspects of Boundary Layer Control for High Lift at Low Speeds, p. 201 (April).

JOHNSTONE, D. R.
Some Current Ideas Regarding the Rotating Distributor, p. 767 (Dec.).

JONES, E. T.
Theodore von Karman—An Appreciation, p. 611 (Oct.).

JONES, W. P.
Trends in Unsteady Aerodynamics (Sixth Lanchester Memorial Lecture), p. 137 (Mar.).

JOUBERT DE LA FERTE, AIR CHIEF MARSHAL SIR PHILIP
The R.N.A.S. and the R.F.C., Lecture Summary, p. X (Feb.).

KAKOUDAKIS, P.
Education of the Airline Engineer—Correspondence, p. 601 (Sept.).

KEAN, A. W. G. and MARKING, H.
Interchange (Lecture), p. 514 (Aug.).

KENWARD, J. R. D.
Take-off and Landing Problems—Approach Criteria (Lecture), p. 552 (Sept.).

KIRK, C. L.
Effect of Third Harmonic Vibratory Force on a Linear Spring-Mass System (TN), p. 799 (Dec.).

LAKER, F. A.
Summary of Lecture, p. LXXXVI (Dec.).

LANCHESTER MEMORIAL LECTURE—SIXTH
Trends in Unsteady Aerodynamics, W. P. Jones, p. 137 (Mar.).

LANDING—*See also* Take-off and Landing.
Landing, Braking Problems, p. 581 (Sept.).

LAW
See List of Lectures under Air Law Group.

LECTURES, DISCUSSIONS and SYMPOSIA (for list of contributors to discussions see Discussions).

Main Society—*See also* Bleriot, British Commonwealth, Handley Page, Lanchester, Wright.
Aerodynamic Design of Swept Winged Aircraft at Transonic and Supersonic Speeds, R. C. Lock, p. 325 (June).
Airline Engineering—A Symposium, p. 165 (Mar.).
Light and Executive Aircraft and Their Future Prospects in the United Kingdom (Christchurch), F. H. Robertson, p. 637 (Oct.).
NATO's Firstborn: The Atlantic (Derby), Rene Bloch, p. 153 (Mar.).
Part Played by Wind Tunnels in Modern Aeronautics, G. M. Lilley, p. 463 (Aug.).
Structural Design of the X-15, R. L. Schleicher, p. 618 (Oct.).
Role of the Royal Aeronautical Society in the Next Decade, Introduced by Sir A. H. Roy Fedden, p. 1 (Jan.).
Take-off and Landing Problems—A Symposium: The Pilot's Point of View, E. C. Miles; Instrument Aids for Take-off, K. Fearnside; Approach Criteria, J. R. D. Kenward; Summary of Morning Discussion, J. A. A. Shaw; Runway Slipperiness and Slush, W. B. Horne and T. J. W. Leland; Design for Runway Conditions, J. W. H. Thomas; Tyre Design Considerations, A. J. Hughes; Braking Problems, D. A. J. Harben; Summary of Afternoon Discussion, J. A. A. Shaw, p. 539 (Sept.).
Towards Better Structures—A Symposium: Materials, J. Fielding; Structural Design, R. J. Atkinson; The Production Aspects, T. O. Williams; Structural Development, H. R. Ashley; Computer Applications in the Development of Efficient Aircraft Structures, I. C. Taig; Summaries of Discussions, C. G. J. Bruce and A. G. R. Thomson, p. 685 (Nov.).
VTOL Aircraft: A Survey of Some of their Characteristics with Special Reference to Civil Use (Australian Division), I. C. Cheeseman, p. 413 (July).

Astronautics and Guided Flight Section
The Design and Development of the Thiokol XLR 99 Rocket Engine for the X-15 Aircraft, H. Davies, p. 79 (Feb.).
Development of Guided, Tactical Missiles in France, E. Stauff, p. 481 (Aug.).
The Development of Thunderbird, G. R. Jefferson, p. 338 (June).

Graduates' and Students' Section
Flight Testing the H.P. 115 Slender Wing Aircraft, Sqn. Ldr. J. M. Henderson, p. 41 (Jan.).
British United Airways—precis of Lecture, p. LXXXVI (Dec.).

Rotorcraft Section
Development of the Tilt-Wing Aircraft, J. B. Nichols, p. 361 (June).
The Engineering Reliability of Shaft-Driven Helicopters (Third Cierva Memorial Lecture), O. L. L. Fitzwilliams, p. 487 (Aug.).
Flight Requirements for the Operation of Rotorcraft, J. Scanlon, p. 240 (April).
The Low-Cost Autogyro, K. H. Wallis, p. 111 (Feb.).
Powered-Lift Research at Langley Field, F. B. Gustafson, p. 371 (June).
Rotating Aerofoils and Flaps, S. Neumark, p. 471 (Jan.).
Rotorcraft Work at the Aeroplane and Armament Experimental Establishment, J. Poole, p. 501 (Aug.).
The Single-Rotor Helicopter with Rigidly-Mounted Blades, R. R. Heppe, p. 651 (Oct.).

Agricultural Aviation Group
Aerial Agricultural Machinery—A Symposium, p. 754 (Dec.).
Agricultural Aviation in the U.S.S.R., E. A. Smirnov, p. 224 (April).

Air Law Group
Crime in Aircraft, Sir Richard Wilberforce, p. 175 (Mar.).
Interchange, A. W. G. Kean and H. Marking, p. 514 (Aug.).
Legal Liabilities Arising out of Aircraft Design and Manufacture, K. M. Beaumont and C. B. White, pp. 296, 298 (May).

Historical Group
The R.N.A.S. and the R.F.C. (Lecture Summary), Air Chief Marshal Sir Philip Joubert de la Ferte, p. X (Feb.).

Man Powered Aircraft Group
Problems of Man Powered Flight (Lecture Summary), E. C. Clear Hill and J. C. Wimpenny (Lecture postponed), p. XX (Mar.).

Branches
Bristol Gas Turbines—The First Decade (Bristol), F. M. Owner, p. 427 (July).
The Development of the Boeing 727 (London Airport), J. E. Steiner, p. 103 (Feb.).

LEE, Y. and BARROW, H.
Note on the Determination of Shearing Stress and Heat Flux Around the Perimeter of a Duct (TN), p. 448 (July).

LELAND, T. J. W. and HORNE, W. B.
Take-off and Landing Problems—Runway Slipperiness and Slush (Lecture), p. 559 (Sept.).

LEWIS, W. G. E. and HERBERT, M. V.
Propelling Nozzle Research, Lecture Summary, p. XX (Mar.).

LILLEY, G. M.
The Part Played by Wind Tunnels in Modern Aeronautics (Lecture), p. 463 (Aug.).

LITTLE, E. C. S.
Agricultural Aviation Potentials for Asia (Lecture Summary), p. LXX (Oct.).

LOCK, R. C.
Aerodynamic Design of Swept Winged Aircraft at Transonic and Supersonic Speeds (Lecture), p. 325 (June).

LYDIARD, W. G.
Fuel Systems Problems in High Speed Aircraft (Lecture Summary), p. X (Feb.).

MABEY, D. G. and DEE, F. W.
Calibration of a Cruciform Wind Vane Configuration at Subsonic and Supersonic Speeds (TN), p. 267 (April), Correction, p. 386 (June).

McDANIEL, J. D.
The Development of the "Radio Altimeter-Trailing Static" Method of Measuring Aircraft Static Pressure Errors, p. 184 (Mar.).

McMAHON, J. M.
Requirements for Agricultural Aircraft—Pilot's Viewpoint and Engineering Aspects: The Pilot's Viewpoint—I, p. 770 (Dec.).

MAHALINGAM, S.
Vibration of Stiffened Rectangular Plates (TN), p. 305 (May).
Flexural Vibration of Rectangular Plates with Stiffeners Parallel to the Edges, p. 664 (Oct.).

MAN
Man and Military Space (Fifty-First Wilbur Wright Memorial Lecture), C. D. Perkins, p. 397 (July).

MANSFIELD, E. H.
Loading and Heating of a Simple Structure with Linear Work Hardening, p. 92 (Feb.).
Loss of Stiffness in a Heated Wing: An Inequality (TN), p. 191 (Mar.).
Stiffening Effect of an Overhang in a Circular Plate (TN), p. 671 (Oct.).

MARKING, H. and KEAN, A. W. G.
Interchange (Lecture), p. 514 (Aug.).

MARSH, WILLIAM LOCKWOOD
An Appreciation, J. Laurence Pritchard, p. XXXVI (May).

MATERIALS—*See also* Aluminium Alloys.
Towards Better Structures, p. 685 (Nov.).

MILES, E. C.
Take-off and Landing Problems—The Pilot's Point of View (Lecture), p. 539 (Sept.).

MILLER, R. H.
Unsteady Air Loads on Helicopter Rotor Blades (Lecture Summary), p. LXI (Sept.).

MILLIKAN, C. B.
Theodore von Karman—An Appreciation, p. 611 (Oct.).

MISSILES
Approximate Trajectories for Maximum Range (TN), S. Raybould, p. 385 (June).
Blue Steel (Lecture Summary), R. H. Francis, p. LXX (Oct.).
Development of Thunderbird, p. 338 (June)
French Developments of Guided Tactical Missiles, p. 481 (Aug.).
Ground-to-Ground Ballistic Missiles (Lecture Summary), J. Cattanach, p. LXI (Sept.).
Review of Flight Optimisation Along Synergic Paths in the Period 1945-1960, p. 116 (Feb.).

MITCHELL, C. G. B.
Variable Geometry Aircraft (Lecture Summary), p. LV (Aug.).

MONORAILS
R. E. G. Davies, Lecture to Graduates' and Students' Section (Summary), p. XXII (Mar.).

MORLEY, A. W. and BRYCE, W. D.
Natural Vibration with Damping Force Proportional to a Power of the Velocity (TN), p. 381 (June).

MOUNTAIN, A. R. and BARNES, J. F.
Heat Transfer to a Jet of Air Impinging Normally on to the Inside Surface of a Hot Smooth Tube (TN), p. 523 (Aug.).

NATO—*See* Bloch, p. 153 (Mar.).

NEBBELING, C.
A Simple Method for Simultaneous Projection of a Schlieren Image on a Viewing Screen and into a Camera (TN), p. 454 (July).

NEUMARK, S.
Rotating Aerofoils and Flaps (Lecture), p. 47 (Jan.).

NEW GUINEA
Air Transport in New Guinea, pp. 30, 31 (Jan.).

NICHOLS, J. B.
Development of the Tilt-Wing Aircraft (Lecture), p. 361 (June).

NOISE
Sonic Bang Waveform of an Aircraft with Lift, p. 595 (Sept.).
Speed of Sound and Mach Number Effects (TN), S. L. Bragg and S. F. Smith, p. 669 (Oct.).
Speed of Sound and Mach Number Effects (TN), B. S. Stratford and reply by S. L. Bragg, p. 797 (Dec.).
Control of Aircraft Noise Perceived at Ground Level, (Lecture Summary), E. J. Richards and H. Caplan, p. XX (Mar.).

NONWEILER, T. R. F.
Delta Wings of Shapes Amenable to Exact Shock-Wave Theory, p. 39 (Jan.).

NOZZLES
Nozzle, Propelling, Cylindrical Ejector when Supersonic, p. 670 (Oct.).
Shock Position in Overexpanded Nozzles (TN), M. Arens and Comment from Prof. I. I. Glass, p. 268 (April).
Theory of the Cylindrical Ejector Supersonic Propelling Nozzle, p. 64 (Jan.).
Propelling Nozzle Research (Lecture Summary), M. V. Herbert and W. G. E. Lewis, p. XX (Mar.).

OWNER, F. M.
Bristol Gas Turbines—The First Decade (Lecture), p. 427 (July).

PAPUA
Air Transport in, pp. 30, 31 (Jan.).

PARKIN, W. J., COFFIN, J. B., COVERT, E. E., CHRISINGER, J. E. and TILTON, E. L.
Magnetic Suspension and Balance Systems for Wind Tunnel Application, p. 717 (Nov.).

PEARSON, H.
Comment on Note of the Cylindrical Ejector Supersonic Propelling Nozzle (TN), and reply by J. Dunham, p. 670 (Oct.).
Efficiencies, Thermodynamics and the By-Pass Engine (TN), p. 796 (Dec.).
Reply to a Theory of the Cylindrical Ejector Supersonic Propelling Nozzle (TN), J. Dunham, p. 64 (Jan.).

PEDERSEN, J. R. and SOUTHGATE, A. C.
Comment on "Delta Wings of Shapes Amenable to Exact Shock-Wave Theory" (TN), p. 301 (May).

PERKINS, C. D.
Man and Military Space (Fifty-First Wilbur Wright Memorial Lecture), p. 397 (July).

PILOTING—*See* Agricultural Aircraft.
Pilots, as a Servo-Element, p. 351 (June).
Pilot's Point of View Regarding Take-off and Landing Problems, p. 539 (Sept.).
Pilot, Prone Position, p. 790 (Dec.).
Pilot's Viewpoint Regarding Agricultural Aircraft, pp. 770, 772 (Dec.).

PIPES
Performance of a Diffuser with Fully-Developed Pipe Flow at Entry (TN), P. Bradshaw, p. 733 (Nov.), Correction, p. 795 (Dec.).
Pipe Bends, Flow and Pressure Losses in smooth, p. 437 (July).

PLATES
Optimum Elastic Restraint for Pressurised Circular Plates (TN), C. W. Bert, p. 525 (Aug.).

PITOT RAKE
Experiments with a Pitot Rake at M=1·60 (TN), V. G. Quincey and J. Callinan, p. 793 (Dec.).

PLATES
Generalisation of the Condition for Waviness in the Pressure Distribution on a Cambered Plate (TN), E. A. Boyd, p. 529 (Aug.).
Plate, Cambered, Condition for Waviness in the Pressure Distribution, p. 529 (Aug.).
Plates, Circular, Optimum Elastic Restraint when Pressurised, p. 525 (Aug.).
Plate, Circular, Deflection when Supported by a Concentric Ring, p. 452 (July).
Plate, Circular, Stiffening Effect of an Overhang, p. 671 (Oct.).
Plate, Long Rectangular Cyclindrical Bending when Heated, p. 65 (Jan.).
Plates, Cylindrical Bending of a Heated Long Rectangular Plate (TN), J. S. Przemieniecki, p. 65 (Jan.).
Stresses in a Plate Pierced by Two Unequal Circular Holes (TN), G. A. O. Davies and J. R. Hoddinott, p. 451 (July).
Deflection of a Uniformly Loaded Circular Plate Supported by a Concentric Ring (TN), S. A. Urry, p. 452 (July).
Plate, Orthotropic, Analysis by Maclaurin's Series, p. 126 (Feb.).
Plates, Rectangular, flexural Vibration with Stiffeners Parallel to the Edges, p. 664 (Oct.).
Plates, Stiffened Rectangular Vibration, p. 305 (May).
Plate, Stresses when Pierced by Two Unequal Circular Holes, p. 451 (July).

POOLE, J.
Rotorcraft Work at the Aeroplane and Armament Experimental Establishment (Lecture), p. 501 (Aug.).

PRESSURE SUITS
G. C. Cook (Lecture Summary), p. LXII (Sept.).

PRITCHARD, J. LAURENCE
Theodore von Karman—An Appreciation, p. 611 (Oct.).
William Lockwood Marsh—An Appreciation, p. XXXVI (May).

PRODUCTION—See Structures Symposium, p. 685 (Nov.).

PROPELLER
Ducted, Velocities Induced by the Vortex Wake, p. 731 (Nov.).

PROPULSION
See J. D. Sibley (Lecture Summary), p. LXXVI (Nov.).

PRZEMIENIECKI, J. S.
Note on Cylindrical Bending of a Heated Long Rectangular Plate (TN), p. 65 (Jan.).

QANTAS
Early Days, pp. 14, 16 (Jan.).

QUINCEY, V. G. and CALLINAN, J.
Experiments with a Pitot Rake at $M = 1 \cdot 60$ (TN), p. 793 (Dec.).

RAJAPPA, N. R. and REDDY, D. V.
Analysis of an Orthotropic Plate by Maclaurin's Series (TN), p. 126 (Feb.).

RAYBOULD, B.
Approximate Trajectories for Maximum Range (TN), p. 385 (June).

REDDY, D. V. and RAJAPPA, N. R.
Analysis of an Orthotropic Plate by Maclaurin's Series (TN), p. 126 (Feb.).

RE-ENTRY—See W. H. Horton.

REVIEWS, AUTHORS OF BOOKS
Adams, C. C. and von Braun, W., in collaboration with Ordway, F. I., Careers in Astronautics and Rocketry, Training and Opportunities in the Space and Missile Field, p. 72 (Jan.).
Akin, R. B., Acetal Resins, p. 70 (Jan.).
Alexander, J. Eugene and Bailey, J. Milton, Systems Engineering Mathematics, p. 388 (June).
Aris, R., Vectors, Tensors and the Basic Equations of Fluid Mechanics, p. 532 (Aug.).
Arnold, R. N. and Maunder, L., Gyrodynamics, p. 195 (Mar.).
Bailey, J. Milton and Alexander, J. Eugene, Systems Engineering Mathematics, p. 388 (June).
Baker, C. H., Man and Radar Displays, p. 311 (May).
Baker, R. M. L. and Makemson, M. W. (Editors), Proceedings of the XIIth International Astronautical Congress, Washington D.C., 1961, Vols. I and II, p. 738 (Nov.).
Barrois, W. and Ripley, E. L. (Editors), Fatigue of Aircraft Structures, p. 531 (Aug.).
Batchelor, G. K. (Editor), The Scientific Papers of Sir Geoffrey Ingram Taylor, Vol. III: Aerodynamics and the Mechanics of Projectiles and Explosions, p. 603 (Sept.).
Bauss, W. (Technical Editor), Radio Navigation Systems for Aviation and Maritime Use: A Comparative Study, AGARDograph 63, p. 805 (Dec.).
Bellman, R. and Cooke, K. L., Mathematics in Science and Engineering, Vol. 6: Differential Difference Equations, p. 455 (July).
Bonnevalle, G., Carpentier, J., Radix, J.-C. and Bouvet, J., Navigation par Inertie (Inertial Navigation), p. 270, (April).
Boughton, T., The Story of the British Light Aeroplane, p. 804 (Dec.).
Boulding, R. S. H., Principles and Practice of Radar, p. 807 (Dec.).
Bouvet, J., Bonnevalle, G., Carpentier, J. and Radix, J.-C., Navigation Par Inertie (Interial Navigation), p. 270 (April).
Bradley, J. N., Shock Waves in Chemistry and Physics, p. 194 (Mar.).
Brenner, W., Lum, D. and Riley, M. W., High Temperature Plastics, p. 132 (Feb.).
Brooks, Dr., Promisel, N. E., Mason, N. H. and Cooper, G. H. (Editors), Advances in Materials Research in the NATO Nations, p. 678 (Oct.).
Brotton, D. M., Application of Digital Computers to Structural Engineering Problems, The, p. 271 (April).
Buchar, G. C., Stuhlinger, E., Ordway, III, F. I. and McCall, J. C. (Editors), Astronautical Engineering and Science, from Peenemunde to Planetary Space, p. 739 (Nov.).
Cambel, A. B., Plasma Physics and Magnetofluidmechanics, p. 531 (Aug.).
Campbell, J. P., Vertical Take-off and Landing Aircraft, p. 456 (July).
Carpentier, J., Radix, J.-C., Bouvet, J. and Bonnevalle, G., Navigation Par Inertie (Inertial Navigation), p. 270 (April).
Caves, R. E., Air Transport and its Regulators—an Industry Study, p. 310 (May).
Chaffois, J., Aérodynamique de L'Avion, Vol. I, p. 387 (June).
C.I.T., Eighth Symposium (International) on Combustion, p. 131 (Feb.).
Cooke, K. L. and Bellman, R., Mathematics in Science and Engineering, Vol. 6: Differential Difference Equations, p. 455 (July).
Cooper, G. H., Brooks, Dr., Promisel, N. E. and Mason, N. H. (Editors), Advances in Materials Research in the NATO Nations, p. 678 (Oct.).
Cox, H. L., The Buckling of Plates and Shells, p. 531 (Aug.).
Curle, N., Laminar Boundary Layer Equations, The, p. 270 (April).
Decca Radar Ltd., R.E.M.E. and R.A.F. Technical Training Command, Basic Radar, Part I, Basic Electronic Circuits, Part I, p. 194 (Mar.).
Dorrance, W. H., Viscous Hypersonic Flow; Theory of Reacting Hypersonic Boundary Layers, p. 456 (July).
Douce, J. L., An Introduction to the Mathematics of Servomechanisms, p. 604 (Sept.).
Duke, W. M. and Vance, R. W. (Editors), Applied Cryogenic Engineering, p. 455 (July).
Duncan, R. C., Dynamics of Atmospheric Entry, p. 388 (June).
Ehricke, K. A., Space Flight, Vol. II: Dynamics, p. 603 (Sept.).
Ellis, D. O. and Ludwig, F. J., Systems Philosophy, p. 70 (Jan.).
Eskinazi, S., Principles of Fluid Mechanics, p. 532 (Aug.).
Evans, J. W. (Editor), The Solar Corona, p. 602 (Sept.).
Ferrari, C. and Tricomi, F. G., Aerodinamica Transonica, p. 194 (Mar.).
Ferraro, V. C. A. and Plumpton, C., An Introduction to Magneto-Fluid Mechanics, p. 455 (July).
Fletcher, A. et al., Index of Mathematical Tables, p. 71 (Jan.).
Flügge, W. (Editor-in-Chief), Handbook of Engineering Mechanics, p. 192 (Mar.).
Forrest, R. G., Fatigue of Metals, p. 604 (Sept.).
Frisch-Fay, R., Flexible Bars, p. 192 (Mar.).
Gaydon, A. G. and Hurle, I. R., The Shock Tube in High-Temperature Chemical Physics, p. 806 (Dec.).
Gibbs-Smith, C. H, Sir George Cayley's Aeronautics—1795-1855, p. 310 (May).
Goldsmith, A. et al., Handbook of Thermophysical Properties of Solid Materials, Vol. IV: Cermets, Intermetallics, Polymerics and Composites, p. 456 (July).
Gray, Peter and Thetford, Owen, German Aircraft of the First World War, p. 273 (April).
Halfman, R. L., Dynamics, Vol. I: Particles, Rigid Bodies and Systems, p. 70 (Jan.).
Halfman, R. L., Dynamics, Vol. II: Systems, Variational Methods and Relativity, p. 195 (Mar.).
Henshaw, J. T. (Editor), Supersonic Engineering, p. 272 (April).
Heywood, R. B., Designing Against Fatigue, p. 195 (Mar.).
Hill, Prudence, To Know the Sky, p. 272 (April).
Hoff, N. J. (Editor), Creep in Structures, p. 313 (May).
Hurle, I. R. and Gaydon, A. G., The Shock Tube in High-Temperature Chemical Physics, p. 806 (Dec.).
Jupp, E. W., Introduction to Dimensional Method, p. 130 (Feb.).
Kaplan, W., Operational Methods for Linear Systems, p. 389 (June).
Kaufmann, W., Technische Hydro-und Aeromechanik, p. 457, (July).
Kennedy, A. J., Processes of Creep and Fatigue in Metals, p. 311 (May).
Konarski, M. M., Russian-English Dictionary of Modern Terms in Aeronautics and Rocketry, p. 678 (Oct.).
Kopal, Z. (Editor), Advances in Astronomy and Astrophysics, Vol. I, p. 196 (Mar.).
Landmark, B. (Editor), Advances in Upper Atmosphere Research, p. 806 (Dec.).
Lee, L., Three-Dimensioned Darkness, p. 389 (June).
Lees, S. (Editor), Air Space and Instruments, Draper Anniversary Volume, p. 532 (Aug.).
Leitmann, G. (Editor), Optimization Techniques with Application to Aerospace Systems, p. 271 (April).
Lipow, M. and Lloyd, D. K., Reliability: Management, Methods and Mathematics, p. 193 (Mar.).
Lloyd, D. K. and Lipow, M., Reliability: Management, Methods and Mathematics, p. 193 (Mar.).
Ludwig, F. J. and Ellis, D. O., Systems Philosophy, p. 70 (Jan.).
Lum, D., Riley, M. W. and Brenner, W., High-Temperature Plastics, p. 132 (Feb.).
Makemson, M. W. and Baker, R. M. L. (Editors), Proceedings of the XIIth International Astronautical Congress, Washington D.C., 1961, Vols. I and II, p. 738 (Nov.).
Mason, F. K., Hawker Hurricane, The, p. 193 (Mar.).
Mason, N. H., Cooper, G. H., Brooks, Dr. and Promisel, N. E. (Editors), Avdances in Materials Research in the NATO Nations, p. 678 (Oct.).
Maunder, L. and Arnold, R. N., Gyrodynamics, p. 195 (Mar.).
McCall, J. C., Bucher, G. C., Stuhlinger, E. and Ordway, III, F. I. (Editors), Astronautical Engineering and Science, from Peenemunde to Planetary Space, p. 739 (Nov.).
McKee, A., Friendless Sky, The, p. 71 (Jan.).
McMinn, S. J., Matrices for Structural Analysis, p. 130 (Feb.).
Melek-Pashayev, N. I., Liquid-Propellant Engines, p. 387 (June).
Miele, Dr. Angelo, Flight Mechanics, Vol. 1: Theory of Flight Paths, p. 312 (May).
Miller, L., Engineering Dimensional Metrology, p. 270 (April).
Minorsky, N., Nonlinear Oscillations, p. 132 (Feb.).
Molitz, H. and Strobel, R., Aussere Ballistik (External Ballistics), p. 738 (Nov.).
Moore, W. G., Early Bird, p. 804 (Dec.).
Morley, L. S. D., Skew Plates and Structures, p. 805 (Dec.).
NASA, USAF and U.S. Weather Bureau (Sponsors), U.S. Standard Atmosphere 1962, p. 390 (June).
Newell, H. E., Express to the Stars, p. 195 (Mar.).
Oak Ridge National Laboratory (Sponsor), Developments in Theoretical and Applied Mechanics, Vol I, p. 603 (Sept.).
Ordway, III, F. I., McCall, J. C., Bucher, G. C. and Stuhlinger, E. (Editors), Astronautical Engineering and Science, from Peenemunde to Planetary Space, p. 739 (Nov.).
Pai, Shih-I., Magnetogasdynamics and Plasma Dynamics, p. 192 (Mar.).
Paushkin, Ya. M., The Chemical Composition and Properties of Fuels for Jet Propulsion, p. 313 (May).
Pitman, G. R., Jr. (Editor), Inertial Guidance, p. 604 (Sept.).
Plumpton, C. and Ferraro, V. C. A., An Introduction to Magneto-Fluid Mechanics, p. 455 (July).
Promisel, N. E., Mason, N. H., Cooper, G. H. and Brooks, Dr. (Editors), Advances in Materials Research in the NATO Nations, p. 678 (Oct.).
Radix, J.-C., Bouvet, J., Bonnevalle, G. and Carpentier, J., Navigation Par Inertie (Inertial Navigation), p. 270 (April).
Riddell, F. R. (Editor), Progress in Astronautics and Rocketry, Vol. 7: Hypersonic Flow Research, p. 131 (Feb.).
Riley, M. W., Brenner, W. and Lum, D., High-Temperature Plastics, p. 132 (Feb.).
Ripley, E. L. and Barrois, W. (Editors), Fatigue of Aircraft Structures, p. 531 (Aug.).
Robertson, Bruce (Editor), United States Army and Air Force Fighters 1916-1961, p. 273 (April).
Rosenhead, L. (Editor), Laminar Boundary Layers, p. 604 (Sept.).
Roy, Maurice (Editor), Dynamics of Satellites; IUTAM Symposium, Paris, May 1962, p. 678 (Oct.).
R.A.F. Technical Training Command, Decca Radar Ltd. and R.E.M.E., Basic Radar, Part I, Basic Electronic Circuits, Part I, p. 194 (Mar.).
R.E.M.E., R.A.F. Technical Training Command and Decca Radar Ltd., Basic Radar, Part I, Basic Electronic Circuits, Part I, p. 194 (Mar.).

Salmon, M., Astronautique—Principes du vol balistique et spatial, p. 533 (Aug.).
Samaras, D. G., Theory of Ion Flow Dynamics, p. 312 (May).
Samuelson, H. W., The Executive Aircraft, p. 806 (Dec.).
Savet, P. H. (Editor), Gyroscopes: Theory and Design, p. 313 (May).
Shacklady, Edward, Gloster Meteor, The, p. 273 (April).
Skolnik, M. I., Introduction to Radar Systems, p. 313 (May).
S.A.E. Committee G-5 Aerospace Shock and Vibration, Design of Vibration Isolation Systems, p. 388 (June).
Southwest Research Institute, Proceedings of the Second and Third Annual Symposia on Non-destructive Testing of Aircraft and Missiles Components, p. 131 (Feb.).
Strobel, R. and Molitz, H., Aussere Ballistik (External Ballistics), p. 738 (Nov.).
Stuhlinger, E., Ordway, III, F. I., McCall, J. C. and Bucher, G. C. (Editors), Astronautical Engineering and Science, from Peenemunde to Planetary Space, p. 739 (Nov.).
Swanborough, F. G., Turbine-Engined Airliners of the World, p. 71 (Jan.).
Thetford, Owen and Gray, Peter, German Aircraft of the First World War, p. 273 (April).
Thompson, G. V. E. (Editor), Space Research and Technology, p. 805 (Dec.).
Tricomi, F. G. and Ferrari, C., Aerodinamica Transonica, p. 194 (Mar.).
USAF, U.S. Weather Bureau and NASA (Sponsors), U.S. Standard Atmosphere 1962, p. 390 (June).
U.S. Weather Bureau, NASA and USAF (Sponsors), U.S. Standard Atmosphere 1962, p. 390 (June).
Unksov, E. P., Engineering Theory of Plasticity, p. 193 (Mar.).
Vance, R. W. and Duke, W. M. (Editors), Applied Cryogenic Engineering, p. 455 (July).
Van der Meulen, C., Aircraft Maintenance; Electrical, Instrument and Radio, p. 602 (Sept.).
von Braun, W. and Adams, C. C., in collaboration with Ordway, F. I., Careers in Astronautics and Rocketry: Training and Opportunities in the Space and Missile Field, p. 72 (Jan.).
Weinberg, F. J., Optics of Flames, including Methods for the Study of Refractive Index Fields in Combustion and Aerodynamics, p. 389 (June).
Wheeler, Air Cdre. A., . . . that Nothing Failed Them, p. 804 (Dec.).
White, J. F. (Editor), Flight Performance Handbook for Powered Flight Operations, Flight Mechanics and Space Vehicle Design, Empirical Formulae, Analytic Approximations and Graphical Aids, p. 602 (Sept.).
Williams, C. A., Aircraft Instrument Control Systems, p. 739 (Nov.).
Witten, L. (Editor), Gravitation—An Introduction to Current Research, p. 388 (June).
Young, R. E., Telemetry, p. 604 (Sept.).

REVIEWS

Adhesives
Acetal Resins, R. B. Akin, p. 70 (Jan.).

Aerodynamics
Aérodinamica Transonica, C. Ferrari and F. G. Tricomi, p. 194 (Mar.).
Aerodynamique de L'Avion, Vol I, J. Chaffois, p. 387 (June).
Optics of Flames, Including Methods for the Study of Refractive Index Fields in Combustion and Aerodynamics, F. J. Weinberg, p. 389 (June).
Progress in Astronautics and Rocketry, Vol. 7: Hypersonic Flow Research, F. R. Riddell (Editor), p. 131 (Feb.).
The Scientific Papers of Sir Geoffrey Ingram Taylor, Vol. III: Aerodynamics and the Mechanics of Projectiles and Explosions, G. K. Batchelor (Editor), p. 603 (Sept.).

Aircraft
German Aircraft of the First World War, Peter Gray and Owen Thetford, p. 273 (April).
Space Research and Technology, G. V. E. Thompson (Editor), p. 805 (Dec.).
The Executive Aircraft, H. W. Samuelson, p. 806 (Dec.).
The Gloster Meteor, Edward Shacklady, p. 273 (April).
The Hawker Hurricane, F. K. Mason, p. 193 (Mar.).
The Story of the British Light Aeroplane, T. Boughton, p. 804 (Dec.).
Turbine-Engined Airliners of the World, F. G. Swanborough, p. 71 (Jan.).
United States Army and Air Force Fighters 1916-1961, Bruce Robertson (Editor), p. 273 (April).
Vertical Takeoff and Landing Aircraft, J. P. Campbell, p. 456 (July).

Air Transport
Aircraft Maintenance; Electrical, Instrument and Radio, C. van der Meulen, p. 602 (Sept.).
Air Transport and its Regulators—an Industry Study, R. E. Caves, p. 310 (May).
Turbine-Engined Airliners of the World, F. G. Swanborough, p. 71 (Jan.).

Astronautics
Astronautical Engineering and Science, from Peenemunde to Planetary Space, E. Stuhlinger, F. I. Ordway, III, J. C. McCalls and G. C. Bucher (Editors), p. 739 (Nov.).
Astronautique—Principes du vol balistique et spatial, M. Salmon, p. 533 (Aug.).
Careers in Astronautics and Rocketry: Training and Opportunities in the Space and Missile Field, C. C. Adams and W. von Braun, in collaboration with F. I. Ordway, p. 72 (Jan.).
Dynamics of Atmospheric Entry, R. C. Duncan, p. 388 (June).
Dynamics of Satellites; IUTAM Symposium, Paris, May 1962, Maurice Roy (Editor), p. 678 (Oct.).
Express to the Stars, H. E. Newell, p. 195 (Mar.).
Flight Performance Handbook for Powered Flight Operations, Flight Mechanics and Space Vehicle Design, Empirical Formulae, Analytic Approximations and Graphical Aids, J. F. White (Editor), p. 602 (Sept.).
Proceedings of the XIIth International Astronautical Congress, Washington D.C., 1961, Vols. I and II, R. M. L. Baker and M. W. Makemson (Editors), p. 738 (Nov.).

Astronomy
Advances in Astronomy and Astrophysics, Vol. I, Z. Kopal (Editor), p. 196 (Mar.).
The Solar Corona, J. W. Evans (Editor), p. 602 (Sept.).

Biographies
To Know the Sky, Prudence Hill, p. 272 (April).

Combustion
Eighth Symposium (International) on Combustion, C.I.T., p. 131 (Feb.).
Optics of Flames, Including Methods for the Study of Refractive Index Fields in Combustion and Aerodynamics, F. J. Weinberg, p. 389 (June).
Shock Waves in Chemistry and Physics, J. N. Bradley, p. 194 (Mar.).

Computation
Application of Digital Computers to Structural Engineering Problems, The, D. M. Brotton, p. 271 (April).

Controls
Aircraft Instrument Control Systems, C. A. Williams, p. 739 (Nov.).
An Introduction to the Mathematics of Servomechanisms, J. L. Douce, p. 604 (Sept.).

Dictionaries
Handbook for Air Force and Civil Aviation Interpreters, Vol. I: Elementary (Russian), p. 739.(Nov.).
Russian-English Dictionary of Modern Terms in Aeronautics and Rocketry, M. M. Konarski, p. 678 (Oct.).

Dynamics
Aussere Ballistik (External Ballistics), H. Molitz and R. Strobel, p. 738 (Nov.).
Dynamics, Vol. I: Particles, Rigid Bodies, and Systems, R. L. Halfman, p. 70 (Jan.).
Dynamics, Vol. II: Systems, Variational Methods and Relativity, R. L. Halfman, p. 195 (Mar.).
Flight Mechanics, Vol. I: Theory of Flight Paths, Dr. Angelo Miele, p. 312 (May).
Space Flight, Vol. II: Dynamics, K. A. Ehricke, p. 603 (Sept.).

Engineering
Applied Cryogenic Engineering, R. W. Vance and W. M. Duke (Editors), p. 455 (July).
Engineering Dimensional Metrology, L. Miller, p. 270 (April).
Engineering Theory of Plasticity, E. P. Unksov, p. 193 (Mar.).
Optimization Techniques with Application to Aerospace Systems, G. Leitmann (Editor), p. 271 (April).
Reliability: Management, Methods and Mathematics, D. K. Lloyd and M. Lipow, p. 193 (Mar.).
Supersonic Engineering, J. T. Henshaw (Editor), p. 272 (April).
Systems Engineering Mathematics, J. Eugene Alexander and J. Milton Bailey, p. 388 (June).

Fatigue
Designing Against Fatigue, R. B. Heywood, p. 195 (Mar.).
Fatigue of Aircraft Structures, W. Barrois and E. L. Ripley (Editors), p. 531 (Aug.).
Fatigue of Metals, P. G. Forrest, p. 604 (Sept.).
Processes of Creep and Fatigue in Metals, A. J. Kennedy, p. 311 (May).

Fluid Mechanics
Developments in Theoretical and Applied Mechanics, Vol. I, Oak Ridge National Laboratory (Sponsor), p. 603 (Sept.).
The Laminar Boundary Layer Equations, N. Curle, p. 270 (April).
Laminar Boundary Layers, L. Rosenhead (Editor), p. 604 (Sept.).
Principles of Fluid Mechanics, S. Eskinazi, p. 532 (Aug.).
The Scientific Papers of Sir Geoffrey Ingram Taylor, Vol. III: Aerodynamics and the Mechanics of Projectiles and Explosions, G. K. Batchelor (Editor), p. 603 (Sept.).
Technische Hydro-und Aeromechanik, W. Kaufmann, p. 457 (July).
Vectors, Tensors and the Basic Equations of Fluid Mechanics, R. Aris, p. 532 (Aug.).

Flying Experiences
Early Bird, W. G. Moore, p. 804 (Dec.).
Friendless Sky, The, A. McKee, p. 71 (Jan.).
Three-Dimensional Darkness, L. Lee, p. 389 (June).

Fuels
The Chemical Composition and Properties of Fuels for Jet Propulsion, Ya. M. Paushkin, p. 313 (May).

History
Sir George Cayley's Aeronautics—1796-1855, C. H. Gibbe-Smith, p. 310 (May).

Hypersonics
Progress in Astronautics and Rocketry, Vol. 7: Hypersonic Flow Research, F. R. Riddell (Editor), p. 131 (Feb.).
Viscous Hypersonic Flow; Theory of Reacting Hypersonic Boundary Layers, W. H. Dorrance, p. 456 (July).

Instruments
Air Space and Instruments, Draper Anniversary Volume, S. Lees (Editor), p. 532 (Aug.).
Gyrodynamics, R. N. Arnold and L. Maunder, p. 195 (Mar.).
Gyroscopes: Theory and Design, P. H. Savet (Editor), p. 313 (May).

Magnetogasdynamics
An Introduction to Magneto-Fluid Mechanics, V. C. A. Ferraro and C. Plumpton, p. 455 (July).
Magnetogasdynamics and Plasma Dynamics, Shih-I Pai, p. 192 (Mar.).
Plasma Physics and Magnetofluidmechanics, A. B. Cambel, p. 531 (Aug.).
Theory of Ion Flow Dynamics, D. G. Samaras, p. 312 (May).

Materials
Advances in Materials Research in the NATO Nations, Dr. Brooks, N. E. Promisel, N. H. Mason and G. H. Cooper (Editors), p. 678 (Oct.).
Flexible Bars, R. Frisch-Fay, p. 192 (Mar.).
Handbook of Thermophysical Properties of Solid Materials—Vol IV: Cermets, Intermetallics, Polymerics and Composites, A. Goldsmith *et al.*, p. 456 (July).
High-Temperature Plastics, W. Brenner, D. Lum and M. W. Riley, p. 132 (Feb.).

Mathematics
Gravitation—An Introduction to Current Research, L. Witten (Editor), p. 388 (June).
Index of Mathematical Tables, A. Fletcher *et al.*, p. 71 (Jan.)
Introduction to Dimensional Method, E. W. Jupp, p. 130 (Feb.).
An Introduction to the Mathematics of Servomechanisms, J. L. Douce, p. 604 (Sept.).
Mathematics in Science and Engineering, Vol. 6: Differential-Difference Equations, R. Bellman and K. L. Cooke, p. 455 (July).
Operational Methods for Linear Systems, W. Kaplan, p. 389 (June).
Optimization Techniques with Application to Aerospace Systems, G. Leitmann (Editor), p. 271 (April).
Systems Engineering Mathematics, J. Eugene Alexander and J. Milton Bailey, p. 388 (June).

Mechanics
Developments in Theoretical and Applied Mechanics, Vol. I, Oak Ridge National Laboratory (Sponsor), p. 603 (Sept.).
Handbook of Engineering Mechanics, W. Flugge (Editor-in-Chief), p. 192 (Mar.).

Metallurgy
Processes of Creep and Fatigue in Metals, A. J. Kennedy, p. 311 (May).

Meteorology
Advances in Upper Atmosphere Research, B. Landmark (Editor), p. 806 (Dec).
U.S. Standard Atmosphere 1962, Sponsored by NASA, USAF, and U.S. Weather Bureau, p. 390 (June).

Miscellaneous
Systems Philosophy, D. O. Ellis and F. J. Ludwig, p. 70 (Jan.).

Navigation
Air Space and Instruments, Draper Anniversary Volume, S. Lees (Editor), p. 532 (Aug.).
Inertial Guidance, G. R. Pitman, Jr. (Editor), p. 604 (Sept.).
Navigation Par Inertie (Inertial Navigation), J. Carpentier, J.-C. Radix, J. Bouvet and G. Bonnevalle, p. 270 (April).
Radio Navigation Systems for Aviation and Maritime Use: A Comparative Study AGARDograph 63, W. Bauss (Technical Editor), p. 805 (Dec.).

Radar
Basic Radar, Part I: Basic Electronic Circuits, Part I, R.E.M.E., R.A.F. Technical Training Command and Decca Radar Ltd., p. 194 (Mar.).
Introduction to Radar Systems, M. I. Skolnik, p. 313 (May).
Man and Radar Displays, C. H. Baker, p. 311 (May).
Principles and Practice of Radar, R. S. H. Boulding, p. 807 (Dec.).

Rocketry
Liquid-Propellant Engines, N. I. Melek-Pashayev, p. 387 (June).

Service Flying
. . . . . that Nothing Failed Them, Air Cdre. A. Wheeler, p. 804 (Dec.).

Shock Tubes
The Shock Tube in High-Temperature Chemical Physics, A. G. Gaydon and I. R. Hurle, p. 806 (Dec.).

Structures
The Buckling of Plates and Shells, H. L. Cox, p. 531 (Aug.).
Creep in Structures, N. J. Hoff (Editor), p. 313 (May).
Matrices for Structural Analysis, S. J. McMinn, p. 130 (Feb.).
Proceedings of the Second and Third Annual Symposia on Non-destructive Testing of Aircraft and Missiles Components, Southwest Research Institute, p. 131 (Feb.).
Skew Plates and Structures, L. S. D. Morley, p. 805 (Dec.).

Supersonics
Shock Waves in Chemistry and Physics, J. N. Bradley, p. 194 (Mar.).
Supersonic Engineering, J. T. Henshaw (Editor), p. 272 (April).

Telemetry
Telemetry, R. E. Young, p. 604 (Sept.).

Vibration
Design of Vibration Isolation Systems, S.A.E. Committee G-5 Aerospace Shock and Vibration, p. 388 (June).
Nonlinear Oscillations, N. Minorsky, p. 132 (Feb.).

Wind Tunnels
The Shock Tube in High-Temperature Chemical Physics, A. G. Gaydon and I. R. Hurle, p. 806 (Dec.).

RESEARCH
Summary of British Commonwealth Lecture, p. LXX (Oct.).
Powered Lift Research at Langley Field, p. 371 (June).

RICHARDS, E. J. and CAPLAN, H.
Control of Aircraft Noise Perceived at Ground Level (Lecture Summary), p. XX (Mar.).

RIPPER, W. E.
Night Spraying, p. 758 (Dec.).

ROBERTSON, F. H.
Light and Executive Aircraft and Their Future Prospects in the United Kingdom (Lecture), p. 637 (Oct.).

ROCKETS—*See also* Missiles.
Design and Development of the Thiokol XLR 99 Rocket Engine for the X-15 Aircraft (Lecture), H. Davies, p. 79 (Feb.).

ROGERS, E. W. E.
Hypersonic Research at the N.P.L. (Lecture Summary), p. IV (Jan.).

ROTORCRAFT
Development of the P.531 (Lecture Summary), C. T. Ciastula, p. LXX (Oct.).
Development of the Tilt-Wing Aircraft, J. B. Nichols, p. 361 (June).
Engineering Reliability of Shaft-Driven Helicopters (Third Ciervа Memorial Lecture), O. L. L. Fitzwilliams, p. 487 (Aug.).
Flight Requirements for the Operation of Rotorcraft (Lecture), J. Scanlon, p. 240 (April).
Helicopter, Single-Rotor, with Rigidly-Mounted Blades, p. 651 (Oct.).
Single-Rotor Helicopter with Rigidly-Mounted Blades, R. R. Heppe, p. 651 (Oct.).
Helicopters, Shaft-driven, Engineering Reliability, p. 487 (Aug.).
Hiller Vertol Aircraft, p. 361 (June).
Powered Lift Research at Langley Field, p. 371 (June).
Rotorcraft Work at the Aeroplane and Armament Experimental Establishment, J. Poole, p. 501 (Aug.).
Turboshaft Engine Installations in Multi-Engine Helicopters (Lecture Summary), J. D. Sibley, p. LXXVI (Nov.).
Unsteady Air Loads on Helicopter Rotor Blades (Lecture Summary), R. H. Miller, p. LXI (Sept.).

ROWE, N. E.
A Time of Transition? (Fifty-Second Wilbur Wright Memorial Lecture Summary), p. LXXVI (Nov.).
Medals Competition, Awards, pp. XXXIV (May,) XLVII (July).

ROYAL AERONAUTICAL SOCIETY
Acknowledgments, pp. I (Jan.), VI (Feb.), XXIV (April), XLIII (July), LVIII (Sept.), LXXXI (Dec.).
Additions to the Library, pp. 72 (Jan.), 132 (Feb.), 196 (Mar.), 275 (April), 314 (May), 390 (June), 457 (July), 533 (Aug.), 605 (Sept.), 679 (Oct.), 739 (Nov.), 807 (Dec.).
Anglo-American Aeronautical Conference, Ninth, (Notice), p. XXIV (April) Programme and Papers, p. XXXI (May).
Annual General Meeting: Agenda, pp. V (Feb.), XIII (Mar.); Report, p. XXXVIII (June).
Annual Report of the Council (Ninety-Eighth), 1962–1963, p. 247 (April).
Annual Subscriptions, p. I (Jan.). Proposed Increase, p. LXIII (Oct.).
Associate Fellowship Examination, Recognition Meeting the Government of India, p. XXVII (June).
Associate Fellowship Examination Fees, p. XVI (Mar.).
Associate Fellowship Examination Results, pp. XVII (Mar.), XXXIII (May), LXVII (Oct.).
Australian Division Lecture Medal, p. I (Jan.).
Branches: Committee Meeting, p. XI (Feb.); Conferences, pp. XLI (June), LXXXV (Dec.); Belfast, pp. XXXIV (May), XLVII (July), LXXI (Oct.); Bristol, p. XI (Feb.); Brough, pp. XI (Feb.), XXXIV (May), XLI (June), LIV (Aug.); LXXVII (Nov.); Canberra, p. XXXI (May), Chester, p. XLVII (July); Coventry, pp. 68 (Jan.), XXXIV (May); Isle of Wight, p. XXXIV (May); Luton, p. XLVII (July); Medway, p. 68 (Jan.); Prestwick, p. LXXI (Oct.); Weybridge, pp. 68 (Jan.), LXXI (Oct.), LXXVII (Nov.); Yeovil, pp. XLVII (July), LXXVII (Nov.).
Changes of Address or Appointment, pp. XXVI (April), XLVI (July).
Charity—Explanation of the Society's Position, "Advancement of Maidens," L.A.W., p. LVI (Aug.).
Council 1962–1963, Jan., Mar., 1963–1964, June, October. Nominations of Candidates, for, pp. V (Feb.), XIII (Mar.), Change, p. XLIX (Aug.).
Elections—*See also* Fellowship, pp. III (Jan.), VII (Feb.), XVII (Mar.), XXV (April), XXXIII (May), XXXIX (June), XLIV (July), LIII (Aug.), LX (Sept.), LXVII (Oct.), LXXV (Nov.), LXXXI (Dec.).
Elliott Memorial Prize, pp. VII (Feb.), XXXVII (June), LXV (Oct.).
Fellowship, pp. I (Jan.), XIII (Mar.), XXIV (April), XLIII (July), XLIX (Aug.), LVIII (Sept.), LXXIII (Nov.), LXXIX (Dec.).
Graduates' and Students' Section, pp. 69 (Jan.), XII (Feb.), XXII (Mar.), XXVIII (April), XXXV (May), XLII (June), XLVIII (July), LV (Aug.), LXII (Sept.), LXXII (Oct.), LXXVIII (Nov.), LXXXVI (Dec.). Agenda for Annual General Meeting, p. XII (Feb.).
Handley Page Memorial Lectures, pp. V (Feb.), XLIX (Aug.).
Hargrave, Lawrence, Notebooks, p. LXXIII (Nov.). Lawrence Hargrave Papers, p. XXX (May).
Honorary Companions, p. XXX (May).
Honorary Fellows, p. XXX (May).
Honours Awarded to Members, pp. I (Jan.), V (Feb.), XIII (Mar.), XXX (May), XLIII (July), LXV (Oct.), LXXIII (Nov.), LXXIX (Dec.).
Journal Binding (Prices), pp. III (Jan.), XLVI (July), (Increased prices), p. LXXXII (Dec.).
Lecture Theatre—Appeal—Donations, p. XXXI (May).
Library, pp. XXXVII (June), XLIX (Aug.).
Man Powered Flight—Rules for, pp. XVI (Mar.), LII (Aug.), Awards of Grants, p. LII (Aug.).
Marsh, Alan, Award 1963, p. XLVII (July).
Medals, Awards and Prizes of the Society, *see also* Elliott Memorial Prize, Rowe Medals Competitions and University Prizes, p. XXXII (May).
Membership list being compiled (to be published in January 1964), pp. XLIX (Aug.), LXXXI (Dec.).
News of Members, pp. IV (Jan.), IX (Feb.), XVIII (Mar.), XXVI (April), XXXIII (May), XXXIX (June), XLV (July), LIII (Aug.), LX (Sept.), LXVIII (Oct.), LXXV (Nov.), LXXXII (Dec.).
President's Message (B. S. Shenstone), p. XXIII (April), Correction, p. XXX (May).
President's Message (A. R. Collar), pp. LVII (Sept.), LXXIII (Nov.).
President 1963–1964, Prof. A. R. Collar, M.A., D.Sc., F.R.Ae.S., F.A.I.A.A., F.C.A.S.I. p. XXIX (May).
President-Elect, 1963–1964, H. H. Gardner, p. XXXVII (June).
Reports received by the Library, pp. 74 (Jan.), 133 (Feb.), 197 (Mar.), 275 (April), 314 (May), 391 (June), 459 (July), 534 (Aug.), 607 (Sept.), 679 (Oct.), 742 (Nov.), 809 (Dec.).
Role of the Royal Aeronautical Society in the Next Decade, A Discussion, Introduction by Sir A. H. Roy Fedden, p. I (Jan.). Second Meeting on 29th July—Typescript available on loan, p. LVIII (Sept.); Summary Report, p. LXIII (Oct.). *See also* Report of Meeting on Proposed Increase in Subscriptions, p. LXIII (Oct.).
Rotorcraft Section Annual Dinner, p. XXIV (April). Helicopter Rally and Garden Party, p. LI (Aug.).
Rowe, N. E., Medals Competition, Awards, p. XXXIV (May).
N. E. Rowe Medals—Papers, pp. 783, 790 (Dec.).
Southern Africa Division, Visit of the Society's Secretary, pp. XXI (Mar.), XXVII (April). 1963–64 Council, p. LXXXI (Dec.), Mrs. D. D. Hughes, Appreciation, p. LI (Aug.).
Subscriptions—Report of the Meeting held on 18th September 1963 regarding increase, p. LXIII (Oct.).
University Prizes, p. XLIX (Aug.).
Vice-Presidents, p. XXXVII (June).

R.A.F. INSTITUTE OF AVIATION MEDICINE
Visit of Graduates' and Students' Section, p. 69 (Jan.).

R.N.A.S.
R.N.A.S. and the R.F.C. (Lecture Summary), Air Chief Marshal Sir Philip Joubert de la Ferte, p. X (Feb.).

ROCKETS
Structural Design of the X-15, p. 618 (Oct.).

ROYCE, HENRY, SEVENTH MEMORIAL LECTURE
NATO's Firstborn: The Atlantic (Derby), Rene Bloch, p. 153 (Mar.).

RUNWAYS
Design for Runway Conditions, J. W. H. Thomas, p. 571 (Sept.).
Runways, Aquaplaning on, p. 598 (Sept.).
Runways, Aquaplaning on, p. 302 (May).
Runway Conditions, Design for, p. 571 (Sept.).
Runway Slipperiness and Slush, W. B. Horne and T. J. W. Leland, p. 559 (Sept.).
Runways, Undercarriage Aquaplaning, p. 189 (Mar.).

SCANLON, J.
Flight Requirements for the Operation of Rotorcraft (Lecture), p. 240 (April).

SCHLEICHER, R. L.
Structural Design of the X-15 (Lecture), p. 618 (Oct.).

SHENSTONE, B. S.
President's Message, p. XXIII (April), Correction, p. XXX (May).

SHOCK-WAVE THEORY
See T. R. F. Nonweiler.

SHOCK WAVES
Configurations for High Supersonic Speeds Derived from Simple Shock-Waves and Expansions, J. W. Flower, p. 287 (May).

SHUTTLEWORTH COLLECTION
p. XLIX (Aug.)

SIBLEY, J. D.
Some Aspects of Turboshaft Engine Installations in Multi-Engine Helicopters (Lecture Summary), p. LXXVI (Nov.).

SIGALLA, A.
Lift Produced by a Sonic Boom (TN), p. 796 (Dec.).

SINNOTT, C. S.
Factors Affecting the Surface Temperature of a Hypersonic Aircraft (TN), p. 672 (Oct.).

SLENDER WING AIRCRAFT
Flight Testing of the H.P.115, p. 41 (Jan.).

SLUSH—See Aquaplaning.

SMIRNOV, E. A.
Agricultural Aviation in the U.S.S.R., p. 224 (April).

SMITH, A. W. J.
Education of the Airline Engineer—Correspondence, p. 600 (Sept.).

SMITH, S. F. and BRAGG, S. L.
The Speed of Sound and Mach Number Effects (TN), p. 669 (Oct.), Comment by B. S. Stratford and reply, p. 797 (Dec.).

SONIC BOOM
Lift Produced by a Sonic Boom (TN), A. Sigalla, p. 796 (Dec.).
Sonic Bang Waveform of an Aircraft with Lift (TN), C. H. E. Warren, p. 595 (Sept.).

SOUTHGATE, A. C. and PEDERSEN, J. R.
Comment on "Delta Wings of Shapes Amenable to Exact Shock-Wave Theory" (TN), p. 301 (May).

SPACE
See Astronautics, p. 255 (April).

SQUIRE, L. C.
The Estimation of the Non-Linear Lift of Delta Wings at Supersonic Speeds, p. 476 (Aug.).

STAUFF, E.
Development of Guided, Tactical Missiles in France (Lecture), p. 481 (Aug.).

STEINER, J. E.
The Development of the Boeing 727 (Lecture), p. 103 (Feb.).

STEWART, MAJOR O.
Recent Changes in Aviation Journalism, Historical Group Lecture published in *Aircraft Engineering*, June 1963, p. XXXVII (June).

STRATFORD, B. S.
The Speed of Sound and Mach Number Effects (TN), and reply by S. L. Bragg, p. 797 (Dec.).

STRUCTURES
Computer Applications in the Development of Aircraft, p. 706 (Dec.).
Heating and Loading of a Single Structure with Linear Work Hardening, p. 92 (Feb.).
Interaction Between Membrane and Edge Stresses for Thin Cylinders under Axially symmetrical Loading, W. H. Wittrick, p. 172 (Mar.).
Loading and Heating of a Simple Structure with Linear Work Hardening, E. H. Mansfield, p. 92 (Feb.).
Loss of Stiffness in a Heated Wing: An Inequality (TN), E. H. Mansfield, p. 191 (Mar.).
Structural Design, p. 692 (Nov.).
Structural Design of the X-15, R. L. Schleicher, p. 618 (Oct.).
Structural Development, p. 701 (Nov.).
Structural Fatigue and Other Airworthiness Aspects, J. K. Williams, p. 776 (Dec.).
Struts, Coupled, Elastic Critical loads, p. 307 (May).
Towards Better Structures—A Symposium: Materials, J. Fielding; Structural Design, R. J. Atkinson; The Production Aspects, T. O. Williams; Structural Development, H. R. Ashley; Computer Applications in the Development of Efficient Aircraft Structures, I. C. Taig; Summaries of Discussions, C. G. J. Bruce and A. G. R. Thomson, p. 685 (Nov.).
Work Hardened Structure, Loading and Heating of, p. 92 (Feb.).

SWEPT WINGS
Estimation of Maximum Lift at Low Mach numbers, p. 227 (April).
Swept Wing Aircraft, Aerodynamic Design at Transonic and Supersonic Speeds, p. 325 (June).

TAIG, I. C.
Towards Better Structures—Computer Applications in the Development of Efficient Aircraft Structures (Lecture), p. 706 (Nov.).

TAKE-OFF AND LANDING
Take-off and Landing Problems—A Symposium: The Pilot's Point of View, E. C. Miles; Instrument Aids for Take-off, K. Fearnside; Approach Criteria, J. R. D. Kenward; Summary of Morning Discussion, J. A. A. Shaw; Runway Slipperiness and Slush, W. B. Horne and T. J. W. Leland; Design for Runway Conditions, J. W. H. Thomas; Tyre Design Considerations, A. J. Hughes; Braking Problems, D. A. J. Harben; Summary of Afternoon Discussion, J. A. A. Shaw, p. 539 (Sept.).

TANNER, T.
Reply to comment on a conjecture of Tanner (TN), E. A. Boyd, p. 127 (Feb.).

THIOKOL XLR 99 ROCKET ENGINE
Design and Development for the X-15 Aircraft, p. 79 (Feb.).

THOM, M. I.
Education of the Airline Engineer—Correspondence, p. 599 (Sept.).

THOMAS, J. W. H.
Take-off and Landing Problems—Design for Runway Conditions (Lecture), p. 571 (Sept.).

THUNDERBIRD
Its Development, p. 330 (June).

TILTON, E. L., PARKIN, W. J., COFFIN, J. B., COVERT, E. E. and CHRISINGER, J. E.
Magnetic Suspension and Balance Systems for Wind Tunnel Application, p. 717 (Nov.).

TIRUMALESA, D.
Effect of Shock Boundary Layer Interaction on Aerofoil Pressure Distributions at Transonic Speeds (TN), p. 674 (Oct.).

TORNADOES and HURRICANES
J. Cocheme (Lecture Summary), p. XII (Feb.).

TRANS-AUSTRALIA AIRLINES
pp. 21–23 (Jan.).

TROLLOPE, D. H. and WALLACE, K. B.
Aquaplaning on Runways (TN), and W. E. Gray's Comments, p. 598 (Sept.).

TYRES
Design Considerations, p. 576 (Sept.).

UNDERCARRIAGES
Tyre Design Considerations, A. J. Hughes, p. 576 (Sept.).
Undercarriage Aquaplaning of Aircraft Landing on Water-Covered Runways (TN), G. E. Gadd, p. 189 (Mar.).

UNITED STATES
Comparison of Aeronautical Industry with that in Europe, p. 279 (May).

U.S.S.R.
Agricultural Aviation in the, p. 224 (April).

URRY, S. A.
The Deflection of a Uniformly Loaded Circular Plate Supported by a Concentric Ring (TN), p. 452 (July).

VTOL AIRCRAFT
Powered-Lift Research at Langley Field, F. B. Gustafson, p. 371 (June).i
VTOL Aircraft: A Survey of Some of Their Characteristics with Special Reference to Civil Use, I. C. Cheeseman, p. 413 (July).

VIBRATION
Flexural Vibration of Rectangular Plates with Stiffeners Parallel to the Edges, S. Mahalingam, p. 664 (Oct.).
Vibration of Stiffened Rectangular Plates (TN), S. Mahalingam, p. 305 (May).
Vibration with Damping Force Proportional to a Power of the Velocity (TN), A. W. Morley and W. D. Bryce, p. 381 (June).
Vibration Problems Solved by Eigenvalue Economisers, p. 526 (Aug.).
Vibration of Rectangular Plates with Stiffeners, p. 664 (Oct.).
Vibratory Force on a Linear Spring-Mass System, Third Harmonic Effect, p. 799 (Dec.).

VISUALISATION METHODS
Visualisation by Dust Deposits of Surface Flow Patterns on Fan Blades, p. 589 (Sept.).
Surface Flow Patterns as Visualised by Dust Deposits on the Blades of a Fan, E. T. Hignett and M. H. Gibson, p. 589 (Sept.).

VON KARMAN, THEODORE
An Appreciation, J. L. Pritchard, E. T. Jones and C. B. Millikan, p. 611 (Oct.).

VORTEX WAKE
Velocities Induced by the Vortex Wake of a Propeller in a Duct (TN), R. Hickling, p. 731 (Nov.).

WALLACE, K. B. and TROLLOPE, D. H.
Aquaplaning on Runways (TN), and W. E. Gray's comments, p. 598 (Sept.).

WALLIS, K. H.
The Low-Cost Autogyro (Lecture), p. 111 (Feb.).
The Wallis Ultra-Light Autogyro, p. 754 (Dec.).

WALLS, A. J.
Education of the Airline Engineer, Correspondence on Paper by Wilkinson, p. 421 (July), p. 528 (Aug.).

WARD, J. W.
The Behaviour and Effects of Laminar Separation Bubbles on Aerofoils in Incompressible Flow, p. 783 (Dec.).

WARD SMITH, A. J.
The Flow and Pressure Losses in Smooth Pipe Bends of Constant Cross Section, p. 437 (July).

WARREN, C. H. E.
A Note on the Sonic Bang Waveform of an Aircraft with Lift (TN), p. 595 (Sept.), Comment from A Sigalla, p. 796 (Dec.).

WATERS, H.
The Elastic Critical Loads of Coupled Struts (TN), p. 307 (May).

WATKINS, J. L.
Australia's Internal Air Transport (Eighteenth British Commonwealth Lecture), p. 11 (Jan.).

WELBOURNE, E. R.
Comment on the Effect of Proof Stress on Notched Fatigue Strength (TN), p. 798 (Dec.).

WESTLAND SRN 2
p. LXXVIII (Nov.).

WHEATCROFT, S.
Licensing of Air Transport (Lecture Summary), p. LXXVI (Nov.).

WHITE, C. B. and BEAUMONT, K. M.
Legal Liabilities Arising out of Aircraft Design and Manufacture (Lecture), p. 296 (May).

WILBERFORCE, SIR RICHARD
Crime in Aircraft (Lecture), p. 175 (Mar.).

WILKINSON, K. G.
Education of the Airline Engineer, p. 421 (July) Correspondence, p. 528 (Aug.), p. 599 (Sept.).

WILLIAMS, J. and BUTLER, S. F. J.
Aerodynamic Aspects of Boundary Layer Control for High Lift at Low Speeds, p. 201 (April).

WILLIAMS, J. K.
Structural Fatigue and other Airworthiness Aspects, p. 776 (Dec.).

WILLIAMS, T. O.
Towards Better Structures—The Production Aspects (Lecture), p. 696 (Nov.).

WIMPENNY, J. C. and CLEAR HILL, E. C.
The Problems of Man Powered Flight (Lecture Summary), (Lecture postponed), p. XX (Mar.).

WIND TUNNELS
Design of Contra-Rotating Fans, p. 725 (Nov.).
Magnetic Suspension and Balance systems, p. 717 (Nov.).
Surface Flow Patterns as Visualised by Dust Deposits on the Blades of a Fan, p. 589 p. 589 (Sept.).
Schlieren Image Projected Simultaneously on a Screen and into a Camera, p. 454 (July).
Wind Tunnel, Centrifugal hypersonic, Investigation of Inertia Effects on Ablating Bodies, p. 745 (Dec.).
Wind Tunnels in Modern Aeronautics, G. M. Lilley, p. 463 (Aug.).
Wind Vane, Cruciform, Calibration at Subsonic and Supersonic Speeds, p. 267 (April), Correction, p. 386 (June).
Wing Configurations for High Supersonic Speeds, p. 287 (May).
Wing, Slender, Boundary Layer Measurements at Supersonic Speeds, p. 291 (May).
Wing Stiffness, Affected by Heat, p. 191 (Mar.).

WIND VANE
Calibration of a Cruciform Wind Vane Configuration at Subsonic and Supersonic Speeds (TN), F. W. Dee and D. G. Mabey, p. 267 (April), Correction, p. 386 (June).

WITTRICK, W. H.
Comment on his paper Rates of Change of Eigenvalues with Reference to Buckling and Vibration Problems (TN) (Sept. 1962), p. 67 (Jan.).

WOODWARD-NUTT, A. E.
Aeronautical Research and Development in the Commonwealth (Nineteenth British Commonwealth Lecture), p. LXX (Oct.).

WOOLLEY, D. H.
Requirements for Agricultural Aircraft—Pilot's Viewpoint and Engineering Aspects: The Pilot's Viewpoint—2, p. 772 (Dec.).

WRIGHT, WILBUR, FIFTY-FIRST MEMORIAL LECTURE
Man and Military Space, C. D. Perkins, p. 397 (July).

WRIGHT, WILBUR, FIFTY-SECOND MEMORIAL LECTURE
A Time of Transition? (Summary), N. E. Rowe, p. LXXVI (Nov.).

X-15 AIRCRAFT
Design and Development of the Thiokol XLR 99 Rocket Engine, p. 79 (Feb.).
X-15, Structural Design, p. 618 (Oct.).

YACHT RESEARCH
Comment on a Conjecture of Tanner (TN), E. A. Boyd and Tanner's reply, p. 127 (Feb.).

YATES, W. E. and AKESSON, N. B.
Research and Development of Chemical Distribution Equipment for Agricultural Aircraft in California, p. 760 (Dec.).